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09/484,426	01/18/2000	Jan E. Forslow	2372-49	9686

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EXAMINER	
ABELSON, RONALD B	
ART UNIT	**PAPER NUMBER**
2666	

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/484,426	FORSLOW, JAN E.	
	Examiner	Art Unit	
	Ronald Abelson	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-14,16-20,23-42,45,46,49-53,55-59,61,62 and 64-75* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-14,16-20,23,29-37, 40, and 55-58* is/are rejected.

7)☒ Claim(s) *24-28,38,39,41,42,45,46,49-53,59,61,62 and 64-75* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 January 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 20, 23, 29, 37, 55, and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the home agent mobility manager" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "the home agents" in line 5, "the virtual home agent network" in line 5, and "the public mobile access data network" in lines 8-9. There is insufficient antecedent basis for these limitations in the claim.

Claim 23 recites the limitation "the mobile nodes" in line 7 and "the tunnel" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 29 recites the limitation "the mobile nodes" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 37 recites the limitation "the home agent" in lines 6, 12, and 14, "the mobile nodes" in lines 7 and 8-9, and "the tunnel" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claim 55 recites the limitation "the mobile nodes" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 58 recites the limitation "the routing node" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 6-14, and 16-20, 29-36, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khalil (US 6,430,698) in view of Agraharam (US 6,407,988).

Regarding claims 1, 20, 29, and 40, Khalil teaches a method and apparatus for use in an Internet (fig. 11 box 14), a public mobile access data network (fig. 11 box 22, 24, roams over a public network, col. 15 lines 17-19) providing a mobile node (fig. 11 box 11) data access to the Internet and data access to the mobile node from the Internet;

plural home agent mobility tunnel servers, coupled to a backbone of the Internet (fig. 11 box 22), and forming a virtual home agent network for the mobile node (fig. 10, 11 box 22, virtual, col. 7 lines 13-17, tunneled by the home agent, col. 1 lines 58–60).

home agent mobility manager (home agent, col. 2 lines 23-24) coupled to the backbone of the Internet that is configured to establish a data tunnel between one of the home agent mobility tunnel servers and one of the foreign agents to

communicate data with the one mobile node (tunneled by the home agent, col. 1 lines 58–60).

Khalil is silent on plural foreign agents, coupled to the home agents mobility tunnel servers, for communicating with one or more mobile nodes over a radio interface;

the public mobile access data network is configured to provide a public mobility service to locate a current mobile node current location so that the Internet is aware of a current point of attachment of one or more mobile nodes to the public mobile access data network;

wherein the public mobility service is provided independently of mobility services offered by a radio access technology specific network.

Agraharam teaches a plurality of foreign agents (fig. 1 box 104-1, 104-2, foreign agent, col. 2 lines 32-34), coupled to the home agents mobility tunnel servers (fig. 1 box 104-1, 104-2, home agent, col. 2 lines 32-34), for communicating with one or more mobile nodes over a radio interface (mobile hosts, col. 3 line 62);

the public mobile access data network (fig. 5 excluding boxes 110 and 140) is configured to provide a public mobility

service (fig. 5 box 140, provided in the Internet, col. 4 lines 17-24) to locate a current mobile node location so that the Internet is aware of a current point of attachment of one or more mobile nodes to the public mobile access data network (col. 7 lines 45-53);

wherein the public mobility service is provided independently of mobility services offered by a radio access technology specific network (fig. 1, 5 box 140, form an additional network, col. 4 lines 20-21).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Khalil by adding a plurality of foreign agents coupled to the mobile nodes and home agents and installing the mobility server of Agraharam within the Internet of Khalil (fig. 11 box 14). This would improve the system since multiple foreign agents may provide load balancing and the mobility server may be used to resolve conflicts due to the mobiles movement among the networks (Agraharam: col. 7 lines 50-53).

Regarding claim 6, all public mobile access data network is operated by an ISP (Khalil: col. 2 lines 33-34).

Regarding claim 7, the public mobile access data network provides data communication by way of the Internet (Khalil: fig. 11 box 14).

Regarding claim 8, in addition to the limitations previously listed, the system provides for a home agent router (Khalil: fig. 11 box 16) coupled to a backbone of the Internet (Khalil: fig. 11 box 14), and a data tunnel is established between the home agent router and one of the foreign agent routers to communicate data with one or more of the mobile nodes (Khalil: tunneled by the home agent, col. 1 lines 58–60).

Regarding claim 9, the home agent router (Khalil: fig. 11 box 16) is located at a point of presence near the Internet backbone (Khalil: fig. 11 box 14).

Regarding claim 10, one or more of the foreign agent routers (Khalil: fig. 11 box 24) is located at a local point of presence near a radio access point (Khalil: fig. 11: Foreign Link) where the mobile node (Khalil: fig. 11 box 11) attaches to the public mobile access data network.

Regarding claim 11, the mobile node de-attaches from the public mobile access data network at one of the foreign agents and re-attaches to the public mobile access data network at another one of the foreign agents (Khalil: changes its point of attachment, col. 1 lines 41-43).

Regarding claim 13, one of the foreign agent routers is configured to send registration message to all home agents in the virtual home agent network (Khalil: fig. 2, col. 2 lines 59-64). Note, the examiner maintains that a foreign agent exists between the mobile node 11 and Internet 14.

Regarding claim 16, if one of the home agents in the virtual home agent network is dysfunctional, another of the home agents in the virtual home agent network forwards data to and from the mobile node (Khalil: fig. 19, col. 13 lines 47-51).

Regarding claims 12, 14, and 19, the combination teaches the home agent router and one of the foreign agents being co-located (Agraharam: fig. 1 box 104-1, col. 3 lines 32-34). Note, regarding claim 14, reciprocal control signaling is reduced when the home agent and foreign agent are co-located.

Regarding claim 17, one of the home agents (Khalil: fig. 11 box 16) in the virtual home agent network (Khalil: fig. 11 box 22) closest to a corresponding node sending data to the mobile node (Khalil: fig. 11 box 11) via the Internet (Khalil: fig. 11 box 14) is selected to forward data to and from the mobile node.

Regarding claim 18, the closest home agent has a smallest routing metric relative to the corresponding node (Khalil: fig. 11, more evenly distributes the load, col. 4 lines 47-49).

Regarding claims 20 and 40, in addition to the limitations previously listed, Khalil teaches configuring a public mobile access data network (fig. 11 box 11, 24, 22) to provide public data access between an Internet (fig. 11 box 14) and a mobile node (fig. 11 box 11) which is attachable to various points of the public mobile access network over a radio interface;

any one of the home agents in the virtual home agent network (fig. 10, fig. 11 box 22, virtual, col. 7 lines 13-17) may forward data to and from the mobile node (fig. 11 box 11, 16, col. 7 lines 45 - 49).

Agraharam teaches one of the home agents (fig. 5 box 104.1) is configured to use a multi-exit discriminator parameter (signals the mobility server, col. 7 lines 45-50) to advertise

to the Internet (fig. 5 box 140, col. 7 lines 45-53, mobility server provided somewhere in the Internet, col. 4 lines 17-18) a preferred entry point to the public mobile access data network (care-of-address of the mobile host, col. 7 lines 45-53). Note, the examiner corresponds the applicant's preferred entry point with the reference's care-of-address of the mobile host.

Regarding claim 29, in addition to the limitations previously mentioned, Agraharam teaches the home agent / access network assigning the mobile node a home address (col. 2 lines 41-43, col. 1 lines 52-53), one of the foreign agents assigning the mobile node a care-of-address (col. 5 lines 2-4), the home agent associates the home address and the care-of address (col. 5 line 65 - col. 6 line 3), and setting in one or more hosting foreign agents an address of the home agent (fig. 5 see connection from box 104.3 to 104.1, col. 7 lines 26-29). Note, in order for the foreign agent to send a message to the home agent, the foreign agent must know the home agent's address.

In the paragraph above, regarding the limitation the home agent assigning the mobile node a home address, in the passages provided in Agraharam the access network establishes a home address for the mobiles (col. 2 lines 41-43) and the home agent is located in the access network (col. 1 lines 52-53).

Regarding claim 30, Agraharam teaches the public mobile access data network (fig. 5 box 104.1) is configured to provide a public mobility service (fig. 5 box 140, provided in the Internet, col. 4 lines 17-24) to locate a current mobile node location so that the Internet is aware of a current point of attachment of one or more mobile nodes to the public mobile access data network (col. 7 lines 45-53).

Regarding claims 31, Agraharam teaches wherein the public mobility service is provided independently of mobility services offered by a radio access technology specific network (fig. 1, 5 box 140, form an additional network, col. 4 lines 20-21).

Regarding claim 32, establishing a tunnel between the home agent and one of the foreign agents to communicate data with one or more of the mobile nodes (Khalil: col. 1 lines 58-60).

Regarding claim 33, the home agent is located at a point of presence near the Internet backbone (Khalil: fig. 11 box 16, 14).

Regarding claim 34, one or more of the foreign agents is located at a point of presence near the Internet backbone (Khalil: fig. 11 box 24, 14).

Regarding claims 35 and 36, Agraharam teaches the home agent router and one of the foreign agents being co-located (fig. 1 box 104-1, col. 3 lines 32-34). Regarding claim 36, reciprocal control signaling is reduced when the home agent and foreign agent are co-located.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Khalil and Agraharam as applied to claim 1 above, and further in view of Turunen (US 6,487,595).

The combination of Khalil, Okanoue, and Agraharam is silent on the radio access network includes GSM/GPRS.

Turunen teaches GSM/GPRS in a mobile IP environment (col. 6 lines 37-40).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Khalil and Agraharam by having the system support GSM/GPRS. This can be accomplished by adhering to GSM/GPRS standards. This

would improve the system by making it compatible with GSM/GPRS which are widely used worldwide.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Khalil and Agraharam as applied to claim 1 above, and further in view of Giniger (US 6,119,045).

The combination of Khalil and Agraharam is silent on the radio access network includes D-AMPS.

Giniger teaches D-AMPS in a mobile IP environment (col. 14 lines 30-35).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Khalil and Agraharam by having the system support D-AMPS. This can be accomplished by adhering to D-AMPS standards. This would improve the system by making it compatible with D-AMPS which is widely used in the United States.

7. Claim 57 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Khalil and Agraharam as applied to claim 32 above, and further in view of Mauger (US 6,552,627).

Although the combination teaches tunneling, the combination is silent on monitoring parameters relating to at least one of use and performance of the data tunnel.

Mauger teaches monitoring parameters relating to at least one of use and performance of the data tunnel (capacity, col. 8 lines 6-11).

Therefore it would have been obvious to one of ordinary skill in the art to modify the system of the combination of Khalil and Agraharam by monitoring tunnel capacity before transmitting packets through the tunnel. This would improve the system since if capacity is not sufficient, an alternate tunnel can be chosen.

8. Claims 55 and 56 rejected under 35 U.S.C. 103(a) as being unpatentable over Khalil in view of Agraharam, and Kalmanek (US 6,711,152).

Regarding claim 55, Khalil teaches a public mobile access data network (fig. 11) to provide public data access between an Internet (fig. 11 box 14) and a mobile node (fig. 11 box 11) which is attachable to various points of the public access data network over a radio interface (links between mobiles (fig. 11 box 11 and foreign and home agents (fig. 11 box 24, 16 are over a radio interface).

Khalil teaches providing a home agent (fig. 11 box 14) coupled to a backbone of the Internet (fig. 11 box 14).

Khalil teaches a foreign agent (fig. 11 box 24) coupled to the home agent (fig. 11 box 16) for communicating with one or more of the mobile nodes (fig. 11 box 11).

Although Khalil teaches a foreign agent coupled to the home agent for communicating with one or more mobile nodes over a radio interface (col. 1 lines 56-60), the reference is silent on a plurality of foreign agents coupled to the mobile nodes and home agents;

the home agent assigning the mobile node a home address;

one of the foreign agents assigning the mobile node a care-of-address;

the home agent associates the home address and the care-of address;

and setting in one or more hosting foreign agents an address of the home agent.

Agraharam teaches a plurality of foreign agents (fig. 1 box 104-1, 104-2, foreign agent, col. 2 lines 32-34), coupled to the home agent (fig. 1 box 104-1, 104-2, home agent, col. 2 lines

32-34), for communicating with one or more mobile nodes (mobile hosts, col. 3 line 62);

the home agent / access network assigning the mobile node a home address (col. 2 lines 41-43, col. 1 lines 52-53);

one of the foreign agents assigning the mobile node a care-of-address (col. 5 lines 2-4);

the home agent associates the home address and the care-of address (col. 5 line 65 - col. 6 line 3), and setting in one or more hosting foreign agents an address of the home agent (fig. 5 see connection from box 104.3 to 104.1, col. 7 lines 26-29). Note, in order for the foreign agent to send a message to the home agent, the foreign agent must know the home agent's address. In the paragraph above, regarding the limitation the home agent assigning the mobile node a home address, in the passages provided in Agraharam the access network establishes a home address for the mobiles (col. 2 lines 41-43) and the home agent is located in the access network (col. 1 lines 52-53).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Khalil by having plural foreign agents and assigning home addresses and care-of addresses according to the teachings of Agraharam, storing at the home agent the mobiles home address and care-of-address, and storing in the foreign agent the home agents home address.

The plurality of foreign agents would improve the system by providing load balancing. The association of addresses would improve the system by providing a method for the system to be aware of the current location of the mobile via the mobile's home address and care-of address and providing a method for the home agent and foreign agent to communicate with each other.

Although the combination teaches IP addressing, the combination is silent on adding a set of mobile node IP addresses to the home agent. For explanation see spec. pg. 24 lines 1-13. Note, the applicant is teaching a destination mask.

Kalmanek teaches adding a set of IP addresses to a specific router by using a mask (col. 14 lines 7-14).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Khalil and Agraharam by using a mask to combine destination addresses. This would improve the system since grouping together destination addresses decreases route lookup time.

Regarding claim 56, forwarding a mobile node registration to plural home agent routing nodes (Khalil: fig. 2, col. 2 lines 59-64).

Response to Arguments

9. Applicant's arguments, see pg. 17, filed 7/27/2004, with respect to 23 and 58 (applicant: pg. 17 paragraphs 3 and 4), have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

10. Applicant's arguments with respect to claim 1 (applicant: pg. 17 last paragraph) and claim 20 (applicant: pg. 17 paragraphs 3 and 4) have been considered but are moot in view of the new ground(s) of rejection.

Reasons for Allowance

Claims 23-28, 37-39, 41, 42, 45, 46, 49-53, 58, 59, 61, 62, and 64-75, would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

The following is a statement of reasons for the indication of allowable subject matter.

Regarding claim 23, Khalil teaches a method and apparatus for use in an Internet (fig. 11 box 14), a public mobile access data network (fig. 11 box 22, roams over a public network, col. 15 lines 17-19) providing a mobile node (fig. 11 box 11) data access to the Internet and data access to the mobile node from the Internet.

The system comprises a home agent router (fig. 11 box 22) coupled to a backbone of the Internet (fig. 11 box 14).

The system comprises the home agent and foreign agent routers communicate using a mobile Internet protocol (Khalil: virtual distributed home agent protocol, col. 6 line 63 - col. 7 line 2).

Although Khalil teaches a foreign agent coupled to the home agent for communicating with one or more mobile nodes over a radio interface (col. 1 lines 56-60), the reference is silent on a plurality of foreign agents coupled to the mobile nodes and home agents.

Okanoue teaches a plurality of foreign agents (fig. 1 box 3, col. 4 lines 1-2) coupled to the mobile node (fig. 1 box 1).

Although Khalil teaches tunneling (col. 1 lines 58–60) the reference is silent on the tunneling includes a label switched path that uses multi-protocol label switching 'MPLS' in an IP environment.

Ma teaches tunneling via a label switched path that uses multi-protocol label switching 'MPLS' in an IP environment (fig. 1, col. 5 lines 47-53).

However, none of the prior art of reference teaches or fairly suggest when the mobile node moves from one foreign agent to another foreign agent, the home agent is configured to inject an address associated with the mobile node into the label switched path in combination with the other limitations of the claim. For support, see applicant: fig. 5 box 68, pg. 26 lines 22-24.

Regarding claim 37, Khalil teaches configuring a public mobile access data network (fig. 11) to provide public data access between an Internet (fig. 11 box 14) and a mobile node (fig. 11 box 11) which is attachable to various points of the public mobile access data network over a radio interface.

Khalil teaches providing multiple home agents (fig. 11 box 16) coupled to a backbone of the Internet.

Khalil teaches configuring plural home agents as a virtual home agent network (fig. 11 box 22) for one of the mobile nodes (virtual, col. 7 lines 13-17).

Okanoue teaches a plurality of foreign agents coupled to the mobile node (fig. 1 box 3, col. 4 lines 1 - 4).

Ma teaches the home agent fig. 1 box 8) and foreign agent fig. 1 box 20) communicating over a tunnel that includes a label switched path that uses multi-protocol label switching MPLS, wherein the home agent and foreign agent are label switched routers at the ends of the label switched paths (col. 5 lines 49-57).

Ryan teaches the label switched routers encapsulate incoming data packets with a label (col. 4 last paragraph), remove a label from outgoing data paths (col. 4 last paragraph), and route data packets by swapping labels at each label switched router along the label switched path (col. 15 lines 4-10).

Agraharam teaches a foreign agent (fig. 5 box 104.3) is in the path from a mobile node (fig. 5 box 100.1) to a home agent (fig. 5 box 104.1).

However, the combination of Khalil, Okanoue, Ma, Ryan, and Agraharam is not obvious to one of ordinary skill in the art.

Regarding claim 58, Khalil teaches for use in a public mobile access data network (fig. 11) providing a mobile node (fig. 11 box 11) data access to the Internet (fig. 11 box 14)

and data access to the mobile node from the Internet, a first routing node (fig. 11 box 16).

Ma teaches establishing a label switched path across (fig. 1, MPLS tunnel, col. 5 lines 49-57) across a public mobile access data network (fig. 1 box 4) between the routing node (fig. 1 box 8) and a second routing node (fig. 1 box 20).

Ma teaches processing and routing packets over the label switched path (node 6 can communicate, col. 5 lines 49-57).

However, nothing in the prior art of the record teaches or fairly suggests the control entity includes a mobile Internet protocol (IP) controller interfacing a MPLS controller for setting up and controlling the label switched path, in combination with all the limitations listed in the claim.

Prior Art of Record

11. Okanoue (US 6,243,758) teaches a plurality of foreign agents (fig. 1 box 3) coupled to the mobile node (fig. 1 box 1) and a home agent (fig. 1, col. 4 lines 1-4).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RA

Ronald Abelson
Examiner
Art Unit 2666

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10/8/2004

CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 10/13/04